REMARKS

Applicant has amended Claims 1-4 and 7, cancelled claims 5, 6, and 8-32 and has added new claims 33 and 34. Claim 1, the only independent claim has been amended to include a drive control portion, a correction portion, and a switching portion.

To summarize, claims 1-4, 7 and 33-34 are pending in this application. Claims 33-34 have been added to provide Applicant with a more complete scope of protection. Support for the additional claims may be found at least on pages 21-23 staring at line 13, pages 25-27, line 14-24 respectively, and in Figures 12 and 14. Favorable consideration or reconsideration, as the case may be is requested.

The Examiner objected to the drawing Figures 1- 4 as –Prior Art – and requested that they be designated as such. Applicant has labeled Figures 3 and 4 as such and has submitted them herewith. With respect to Figures 1 and 2, Applicant traverses the Examiners objection and notes that Applicant relies on those specific figures in the specification in describing the embodiments of the invention, (see i.e., page 7, line 25), therefore, Applicant believes that they should not be labeled prior art.

Claims 1, 4, 7, 10-11, 16, 18, and 20 were rejected as being anticipated under 35 U.S.C. § 102(b) by Japanese Patent No. 61-128681 (Shigeki et al.). Claims 2-3, 5-6, 8-9, 12-15, 17, 19, and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shigeki et al. in view of U.S. Patent No. 4,644,287 (Levine). The cancellation of claims 5, 6, and 8-32 renders their rejections moot.

Claim 1 as amended is an image pickup apparatus comprising a plurality of pixels each including a photoelectric conversion portion, that converts an optical signal

from an object into an electrical signal, and a read portion which reads out the converted signal from the photoelectric conversion means to an output line. The image pickup apparatus contains a drive control portion that controls a first mode for reading out from the read portion, a pixel noise signal which is obtained by resetting an input portion of the read portion, and a second mode for reading out from the read portion an image signal which includes a signal generated by the photoelectric conversion portion. A correction portion which subjects the image signal read out from the read portion, to correction processing using the pixel noise signal, a detection portion which detects an object condition, and a switching portion which switches over the correction processing of the correction portion according to an output of the detection portion.

Prior to the Applicant's invention, if an image of an object to be "picked up" by an imaging apparatus had a very high brightness level, the fixed pattern noise obtained by resetting the read portion of a pixel might include a leaky noise signal caused by the high brightness of the object. This caused deterioration of the quality of the picked-up image. The present invention is arranged so as to correct an image pickup signal by subtracting a fixed pattern noise signal from the detected signal. The present image pickup apparatus detects an objects condition and switches over the correction processing of the image pickup signal according to the detection results of the object condition thereby avoiding the leaky noise problem caused by a highly bright object.

Applicant believes that Shigeki et al. fails to teach a switching portion functioning in conjunction with a drive control portion, a correction portion, and a detection portion as disclosed in amended Claim 1. Shigeki et al. discloses an image-pickup apparatus in which the pixels corresponding to different fields are connected to

-6-

different output lines respectively (Fig. 3). The basic structure of Shigeki et al. discloses that when the pixels of one field are read out, a signal of the output line corresponding to the other field is also read out, such that a noise signal that is included in the image pickup signal is removed by subtracting the signal on the output line of the other field from the read-out pixel signal (Figures 7 and 8). In this regard, Shigeki et al. may be read to teach the switching over of noise reduction processing, however, Shigeki et al. fails to teach the reading out of a reset noise signal obtained by resetting a reading portion of the pixel. Therefore, Applicant submits that Shigeki et al. fails to teach that the correction portion functions together with the drive control portion as disclosed in amended independent Claim 1.

Levine discloses a CCD-type image pickup apparatus that is used for reducing the noise component contained in an information component contaminated with noise. Levine does not disclose or teach the drive control portion of the present invention.

Applicants submit that neither Shiegki et al. nor any proposed combination of Shiegki et al. and Levine, assuming such combination would even be permissible, would teaches or suggests to one skilled in the art the image pickup apparatus of the present invention.

A review of the other art of record has failed to reveal anything that, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as applied against independent Claim 1. Therefore, Claim 1 is respectfully submitted to be patentable over the art of record.

The other rejected claims and the newly added claims, 33 and 34, in this application all depend from independent Claim 1 discussed above, and, therefore, are

submitted to be patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, individual consideration or reconsideration, as the case may be, of the patentability of each claim on its own merits is respectfully requested.

Applicant's undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

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